

Search Engine Strategies in a Social Media World

Erik Arnold
John Murphy
Jay Virdy

Agenda

- Government Web Sites Need Business Goals
- SEO Today
- Important of Being Earnest -- Analytics
- Site Review
- Questions
- Appendix:
- Organic SEO 101 -- Take

Assumptions of Government Web Publishing

Publishing information to the Internet means search engines will find it

Publishing information to the Internet means the information is accessible

Webmasters will take any additional steps to ensure information is found and adequately organized by search engines

Webmasters understand how search engines work

Webmasters and “business” managers communicate

Plain English Publishing Has to be a Commitment

One Thing Constant -- Change

Universal Search

– Web Search

- Google, Yahoo, Bing
- **Market:** Internet users
- **Business Goal:** Get people to your site

– Site Search

- Search engine on your web site
- **Market:** Your customers
- **Business Goal:** Provide them the info they seek

• Enterprise Search

- Search engine for indexing your internal documents / information
- **Market:** Employees of an organization
- **Business Goal:** Increase productivity

If you do a good
job on SEO, then you
should be able to
leverage
the USA.gov Search
Affiliate program for free.

What Is Universal Search?

Web [Show options...](#)

ALL RESULTS

1-10 of 9,860,000 results · [Advanced](#)

News results for **ipad**



[Adobe scraps Flash plans for iPad and iPhone](#) - 1 hour ago

The iPad lacked Flash when it was initially released, but it was hoped and expected that Adobe would throw its cards on the table and attempt, at best, ...

[ZDNet \(blog\)](#) - [409 related articles »](#)

[PC World](#)

[I ordered an iPad. What apps should I install first?](#) - [CNET](#) - [147 related articles »](#)

[Experts: iPad's bumps entering college market are temporary](#) -

[USA Today](#) - [209 related articles »](#)

Apple - iPad - See the web, email, and photos like never before.

The iPad. With a revolutionary, 9.7 inch touch screen, and amazing new apps, it does things no tablet PC, netbook, or e-reader could. Starts at \$499.

[Features](#) - [Price starting at \\$499](#) - [Gallery](#) - [Tech Specs](#)

[www.apple.com/ipad/](#) - [Cached](#)

Apple

Apple designs and creates iPod and iTunes, Mac laptop and desktop computers, the OS X operating system, and the revolutionary iPhone and iPad.

[Store](#) - [iPad](#) - [Downloads](#) - [Support](#)

[www.apple.com/](#) - [Cached](#) - [Similar](#)

[Show more results from www.apple.com](#)

iPad - Wikipedia, the free encyclopedia

The iPad is a tablet computer designed and marketed by Apple, meant for internet browsing, media consumption, gaming, and light content creation. ...

[en.wikipedia.org/wiki/IPad](#) - [Cached](#)

Image results for **ipad** - Report images



News about **iceland volcano**

[Iceland volcano: Pitt researcher compiles first high ...](#)

The images are available on Pitt's Web site at <http://www.pitt.edu/~mramsey/data/iceland>

[PhysOrg.com](#) 2 hours ago

[Iceland Volcano Activity Increases](#) · [ABC News](#) 6 days ago

[Most Travel Insurance Companies Covering Travelers ...](#) · [Investors Business...](#) 3 hours ago

[See today's top stories](#) · [See recent tweets](#) · [Create news alert](#)

Share: [Facebook](#) [Twitter](#) [Email](#)

Images of **iceland volcano**



Iceland Volcano - Information, News and Pictures - WSJ ...

Iceland Volcano - profile from the Wall Street Journal. News, articles, biography and photos.

[topics.wsj.com/subject/I/iceland-volcano/6048](#) - [Cached page](#)

CVO Menu - Iceland Volcanoes and Volcanics

From: Newhall and Dzurisin, 1988, Historical Unrest at Large Calderas of the World: U.S. Geological Survey Bulletin 1855 The Mid-Atlantic plate boundary passes through Iceland ...

[vulcan.wr.usgs.gov/Volcanoes/Iceland/description_iceland_volcanics.html](#) - [Cached page](#)

Internal Revenue Service

The IRS is the US government agency responsible for tax collection and tax law enforcement.

Contains downloadable forms, instructions, ...

[www.irs.gov/](#) - [Cached](#) - [Similar](#)

[Where's My Refund](#)
[Forms and Publications](#)
[Contact IRS](#)
[Frequently Asked Questions](#)

[E-file](#)
[Free File](#)
[Online Services](#)
[Individuals](#)

File Manager For Publications - IRS

Feb 16, 2010 ... Welcome to the forms and publications resource page, the official source of IRS tax products. The links below provide methods to access and ...

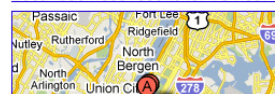
[www.irs.gov/formspubs/index.html](#) - [Cached](#) - [Similar](#)

Where's My Refund - It's Quick, Easy, and Secure.

Mar 16, 2010 ... You can generally get information about your refund 72 hours after IRS acknowledges receipt of your e-filed return, or three to four weeks ...

[www.irs.ustreas.gov/individuals/article/0,,id=96596,00.html](#) - [Cached](#)

Local business results for **irs** near New York, NY - Change location



A Internal Revenue Service (IRS)
[www.irs.gov](#) - (800) 829-1040 - [2 reviews](#)

B US Internal Revenue Services
[www.irs.gov](#) - (917) 421-3933 - [More](#)

Government Universal Search

[Passport Home](#)

Limited Number of U.S. **Passport** Cards Found to Be Defective ... Report and/or Replace a **Passport** Lost or Stolen in the U.S.; NOTE: For overseas help with a ...
[travel.state.gov/passport/passport_1738.html](#) - [Cached](#) - [Similar](#)

[How to Apply In Person](#)

When applying for a U.S. **passport** in person, evidence of U.S. citizenship must be submitted with Form DS-11. All documentation submitted as citizenship ...
[travel.state.gov](#) > [Passports Home](#) > [Get or Renew Passport](#) - [Cached](#) - [Similar](#)

[+ Show more results from travel.state.gov](#)

[USPS - Passport Application Information](#)

You can apply for a **passport** at many post offices around the country. The fees and payment methods are listed below. For an additional \$15 fee, ...
[usps.com/passport](#) - [Cached](#)

[Travel](#)

Passport Day in the USA: On March 27, U.S. citizens in the U.S. can apply for a **pa** without an appointment at 23 regional **passport** agencies. ...
[Passports](#) - [Visas](#) - [Current Travel Warnings](#)
[www.state.gov/travel/](#) - [Cached](#) - [Similar](#)

[Current Travel Alerts](#)

Current **Travel Alerts**. **Travel Alerts** are issued to disseminate information about short-term conditions, generally within a particular country, that pose imminent ...
[travel.state.gov/travel/cis_pa_tw/pa/pa_1766.html](#) - [Cached page](#)

[Current Travel Warnings](#)

Current **Travel Warnings**. **Travel Warnings** are issued to describe long-term, protracted conditions that make a country dangerous or unstable. A **Travel Warning** is also ...
[travel.state.gov/travel/cis_pa_tw/tw/tw_1764.html](#) - [Cached page](#)

[Expedia Travel: Airline Tickets, Hotels, Car...](#) 8 hours ago

... hotel reservations, and find vacation packages, car rental & cruise deals at the **travel** ... **Travel Alert**
[www.expedia.com](#) - [Cached page](#)

[News about travel alert](#)

Taiwan issues **travel alert** for Thailand

Taipei - Taiwan issued a **travel** warning for Thailand Friday, asking its nationals to avoid visiting...
[Monsters and Critics](#) 8 hours ago

Black outbound **travel alert** for Bangkok still in force ... · [Xinhua News Agency](#) 5 days ago

Travel alert: I-25 closed southbound from Lone Tree to ... · [Coloradoan](#) 2 hours ago

[See today's top stories](#) · [See recent tweets](#) · [Create news alert](#)

Share: [Facebook](#) [Twitter](#) [Email](#)

Social Components

[Latest results for health care twitter](#) - [Pause](#)

[Health Care Hawker Campaigning on the Public Dime?...](#)

[Shot of Common...](#) | [Facebook](#) - facebook.com

Twitter - 5 minutes ago

[selvan_tengy](#): Office of Rural Health Policy: The Office of Rural Health Policy (ORHP) promotes better **health care** service in rur...

[Office of Rural Health Policy](#) - hrsa.gov

Twitter - 7 minutes ago

[HealthCareRenew](#): Explaining **Health Care** Executives' Impunity - the (Unexplained) Leniency of Prosecutors: On **Health Care** Renewal. w...

[140 Health Care Uses for Twitter](#) « [Phil Baumann](#)

Jan 16, 2009 ... Unlike most other kinds of uses of **Twitter** (daily exchanges between friends, the kind of work @Comcastcares does, etc.), **health care** related ...

[philbaumann.com/2009/01/.../140-health-care-uses-for-twitter/](#) - [Cached](#) - [Similar](#)

[Twitter Groups ~ Healthcare ~ healthcare](#)

[Sarah Palin: Statement on the Current Health Care Debate | Facebook](#)

Aug 7, 2009 ... Sarah Palin wrote a note titled Statement on the Current **Health Care** Debate. Read the full text here.

[www.facebook.com/note.php?note_id=113851103434](#) - [Cached](#) - [Similar](#)

[Health 2.0—User Generated Healthcare | Facebook](#)

Health 2.0—User Generated **Healthcare** is on **Facebook** Sign up for **Facebook** to ...
[www.facebook.com/group.php?gid=4153244634](#)

[Aurora Health Care | Facebook](#)

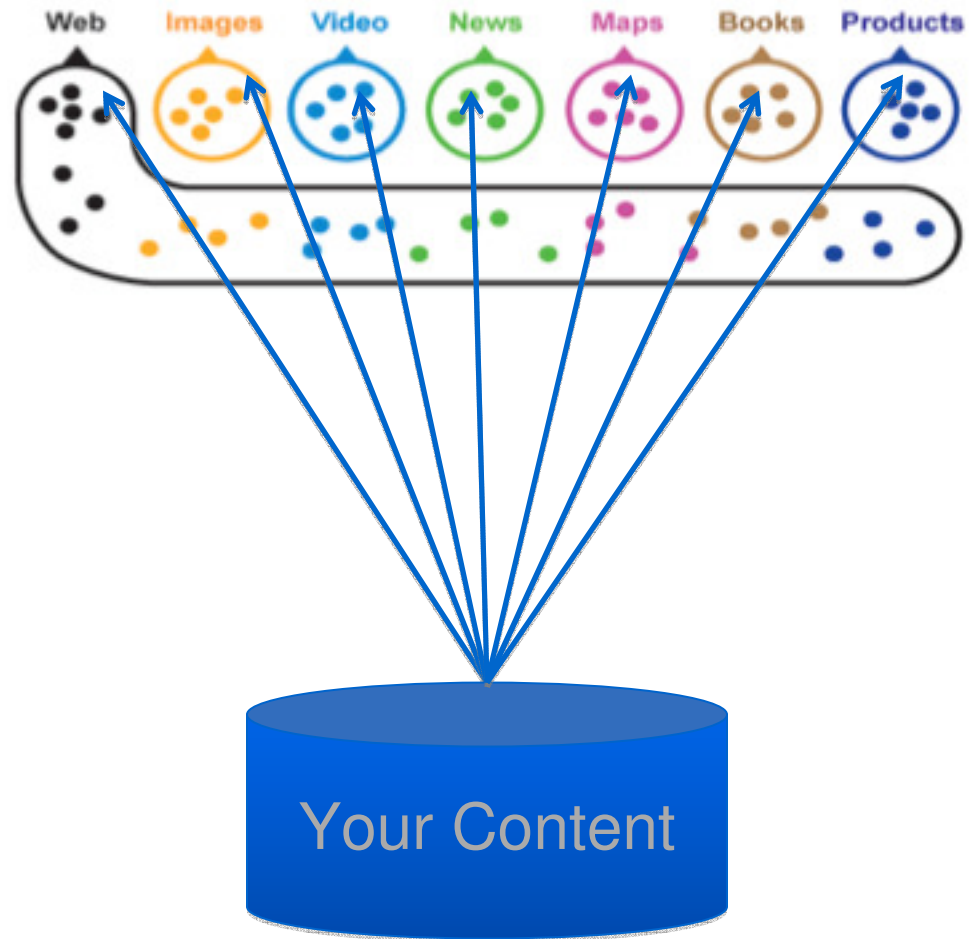
Welcome to the official **Facebook** Page of Aurora **Health Care**.
[www.facebook.com/AuroraHealth](#)

[More results from facebook.com »](#)

Content Distribution is Key

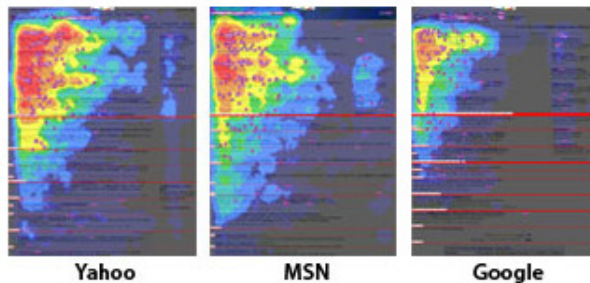
Content is not just for a web site anymore:

- Blogs
- Picture
- Video
- News
- Maps
- Facebook
- Twitter



Human Behavior

Enquiro Eye Tracking Report II: Google, MSN and Yahoo Compared



Our original study used eye tracking technology to quantify what user interactions with the Google search results page looked like. The results were the **"Golden Triangle"** image which has been discussed extensively. Of course, because the scope of the original study was restricted to Google, that left one big question: *What about the other engines?*

This new study from Enquiro not only answers that question but attempts to explain the **significant differences in search behaviors** noticed on Yahoo! and MSN search results pages where the tasks given were the same. We explore the reason for this which has less to do with the actual relevance of the results themselves and more **to do with the perception of relevancy**.

Gord Hotchkiss' Eye Tracking Study -

Shows scan patterns on search results pages, and the interplay among page elements

Key Findings

Difference in eye patterns above the fold than below the fold

Increase in visibility & clicks for top links than side links

Importance of rank for both organic and paid searches

Search Analytics

- Web log analytics
 - How are users getting to your site from the commercial search engines
- Site search analytics
 - Process of looking at your search engine log files and implementing changes to the web site
- Few consistently analyze log files

What Words Do You Optimize for Search Engines?

What is Your Ranking vs. Your Competition?

Do you look at web metric reports?

- Alexa (<http://www.alexa.com>), Compete, Adwords Tools

Mentions in newspapers that highlight current information on your site and are picked up by web search engine spiders

Getting reputable organizations, with sites recognized as such by the search engines, mention you/link to you

Awards and mentions on lists of “the best site for...”

Discussions on blogs or mentions in e-newsletters, particularly those with influence

How do Your Competitors Describe Themselves?

- Where do my competitors stack up against these keywords?
- Are my competitors seeing similar referral patterns?
- Do the keywords that your users on your site match those on the search engines?
- Do you have any competitive advantage on the keywords?
- What is the market share of the keywords that people search on your web site compared to the search engines?

Case Study

What is Your Agency Web Site's Business Goals?

- Yes, even government sites have business goals
 - Traffic
 - What type of traffic increase do we seek?
 - Audience
 - Who do we want to come to the site
 - Page Rank
 - How do we increase traffic reach across the Internet?
 - Keyword Metrics
 - What words do we want to appear #1

Search.USA.gov Affiliate Program

Organic SEO Design 101

Spider behaviour varies

Parts of a web page that are indexed

How deeply a site is indexed

Types of files indexed

How frequently the site is spidered

Lots of tricky aspects

Servers are often down or slow

Hyperlinks can get the crawler into cycles

Some websites have junk in the web pages

Now many pages have dynamic content

- The “hidden” web

The web is HUGE

What really gets crawled?

A small fraction of the Web that search engines know about; no search engine is exhaustive

Not the “live” Web, but the search engine’s index

Not the “Deep Web”

Mostly HTML pages but other file types too: PDF, Word, PPT, etc.

Oh NO! High School Again!

Popularity based on the number pages that link to you

- Not all pages are created equal

All search engines have different popularity algorithms

- Google's algorithm is called Page Rank

Every Web page has a calculation of popularity

Understanding Page Rank

All search engines assign a value to your site based on inbound links

Google calls this relevancy factor “Page Rank” (PR) - synonymous with popularity ranking

- An inbound link is a vote for your page
- An outbound link is a vote for the page you’re linking to

Listen to Google, not “SEO” People ;-)

<http://www.google.com/webmasters/checklist/>



Webmaster guidelines

 [Print](#)

Following these guidelines will help Google find, index, and rank your site. Even if you choose not to implement any of these suggestions, we strongly encourage you to pay very close attention to the "Quality Guidelines," which outline some of the illicit practices that may lead to a site being removed entirely from the Google index or otherwise penalized. If a site has been penalized, it may no longer show up in results on Google.com or on any of Google's partner sites.

Design and content guidelines	Learn more...
Technical guidelines	Learn more...
Quality guidelines	Learn more...

Referrals – Yahoo Site Explorer

Results		
Pages (24,812)	Inlinks (27,898)	Show pages from: All subdomains Only this domain
Result details:  	Submit webpage or Site Feed Export first 1000 results to TSV	
1.	Memorial Sloan-Kettering Cancer Center text/html http://www.mskcc.org/ - 32k - cache	Explore
2.	About Herbs, Botanicals, and Other Products - Sloan-Kettering text/html http://www.mskcc.org/mskcc/html/11570.cfm - 25k - cache	Explore
3.	Sloan-Kettering - New Cancer Gene Identified text/html http://www.mskcc.org/mskcc/html/54387.cfm - 28k - cache	Explore
4.	Sloan-Kettering - Integrative Medicine text/html http://www.mskcc.org/mskcc/html/1979.cfm - 32k - cache	Explore
5.	Memorial Sloan-Kettering Cancer Center - Lung Cancer Risk ... text/html http://www.mskcc.org/mskcc/html/12463.cfm - 31k - cache	Explore
6.	Prostate Cancer Nomograms text/html http://www.mskcc.org/mskcc/html/10088.cfm - 36k - cache	Explore
7.	Sloan-Kettering - Prediction Tools text/html http://www.mskcc.org/mskcc/html/5794.cfm - 30k - cache	Explore
8.	Sloan-Kettering - Pediatric Cancer Care text/html http://www.mskcc.org/pediatric_cancer_care - 30k - cache	Explore
9.	Skin Cancer Information text/html http://www.mskcc.org/mskcc/html/420.cfm - 27k - cache	Explore
10.	Prostate Cancer Center - Memorial Sloan-Kettering text/html http://www.mskcc.org/mskcc/html/403.cfm - 30k - cache	Explore

Text to Include

Strategic Keywords

- Words describing your site
- Use the language of your users
 - Are all of these “strategic”

Page Content

- Make content appear focused
 - Title tag, headings, contextual links, cross-links
 - Clear body text

Keywords

Choose one or two keywords or phrases to optimize for each page

- Don't get penalized

Incorporate other complimentary words and phrases

Check Keyword Density:

- <http://www.webobjectives.com/>
- <http://www.keyworddensity.com/>

Keyword Prominence

Search engines place “weight” on terms according to where they are used

- Title tags
- Headings
- Visible body text
- Description meta tags
- Alt text in images

Tags, Not Style, Matter

```
<!-- START DROPDOWN (361, 235, 'HOMEPAGE') -->
<FORM ONSUBMIT="return gotoMenu(this.elements[0])">
<TABLE BORDER="0" CELLSPACING="0" CELLPADDING="0"><TR>
<TD><SELECT STYLE="width:205px;">
<OPTION VALUE="location='/mskcc/html/361.cfm'" SELECTED>Select a Type of Cancer</OPTION>
<OPTION VALUE="location='/mskcc/html/8226.cfm'"> AIDS-Associated Cancers</OPTION>
<OPTION VALUE="location='/mskcc/html/280.cfm'"> Bladder Cancer</OPTION>
<OPTION VALUE="location='/mskcc/html/1365.cfm'"> Bone Cancer</OPTION>
<OPTION VALUE="location='/mskcc/html/15467.cfm'"> Bone Marrow Transplantation</OPTION>
<OPTION VALUE="location='/mskcc/html/289.cfm'"> Brain Tumor Center</OPTION>
<OPTION VALUE="location='/mskcc/html/9243.cfm'"> Brain Tumors, Metastatic</OPTION>
<OPTION VALUE="location='/mskcc/html/2866.cfm'"> Brain Tumors, Pediatric</OPTION>
<OPTION VALUE="location='/mskcc/html/293.cfm'"> Breast Cancer</OPTION>
<OPTION VALUE="location='/mskcc/html/300.cfm'"> Cervical Cancer</OPTION>
<OPTION VALUE="location='/mskcc/html/64215.cfm'"> Childhood Cancers</OPTION>
<OPTION VALUE="location='/mskcc/html/311.cfm'"> Colorectal Cancer</OPTION>
```

As a best practice, assume
search engines ignore style

Primary vs. Secondary Text

Primary Text

Title tag

Body text

Text near the top of the page

Text in and around links
(e.g. anchor text)

Secondary Text

Alt text

Description tag

Domain name and URL
elements

Making a link...Easy?

Links should map to your business strategy

- You must decide on words that describe you

Keywords in links tell crawlers about the pages

- Influence relevancy of the page to which you are linking

No “[click here](#)” links

OUR FACULTY

Learn more about the faculty's **clinical** expertise and research [go >>](#)

You must still mail in the (a) \$100 application fee, (b) Dean's Letter and (c) Memorial Sloan-Kettering Cancer Center Health Statement. The dean's letter must be on medical school letterhead and follow the exact format requested. [Click here to view a template of an acceptable dean's letter](#). The Memorial Sloan-Kettering Cancer Center Health Statement must contain all titers. Click here to download the [the Health Statement](#). Note: No faxed, scanned or PDF copies are acceptable for either of these documents.

Some ranking criteria*

For a given candidate result page, use:

- Number of matching query words in the page
- Proximity of matching words to one another
- Location of terms within the page
- Location of terms within tags e.g. <title>, <h1>, link text, body text
- Anchor text on pages pointing to this one
- Frequency of terms on the page and in general
- (Sometimes) Click-through analysis: how often the page is clicked on
- How “fresh” is the page

Prescriptions for disaster

Poor HTML coding

Image maps

Frames

JavaScript

Dynamic pages

Flash

Site navigation scheme

Text Links

- Very search engine friendly
- Use for primary or secondary navigation

Problems with Text Links

- Can negatively skew keyword density
- Crawlers tend to read text links first

Site navigation scheme

Navigation buttons

- Okay if you include alt text
- Avoid JavaScript, unless you can provide navigation crawlers can follow
- Recommendation: use alt text and text navigation at the bottom of the page – allows you put keywords in multiple places

Site navigation scheme

Image Maps

- Crawlers ignore links inside image maps
- User text links or navigation buttons elsewhere

Pull Down Menus

- Generally not crawler friendly because they need JavaScript or a CGI program
- Always provide two forms of navigation: one for your users and one for your crawlers

Use external JavaScript and CSS

External files decrease page load time for visitors

External files decrease download time for crawlers

External scripts are easier to re-use

Flash

Few search engines crawl links embedded inside a Flash navigation scheme

Flash sites contain little text

If you include Flash ...

- Include a “Skip” link so both the user and crawler can go to the real homepage
- Include title and description meta tags

SWISH Easy Flash Animation Software Tools
(<http://www.swishzone.com/>)

How to meta tag documents on a web page *

Keywords: Do not include words that are not present on your page

Use same main words in all Title, Description and Keyword tags

Keyword Repetition: Never repeat same words over and over again in keyword strings

Analyze meta tags
(<http://www.scrubtheweb.com/abs/meta-check.html>)

Keyword Density: For the main keyword for each page, that keyword should be used a minimum of 4 times

Meta tag expert
(http://www.darkstreet.com/darkstreet/meta_tag_expert.php)

Recommended meta tag structure*

It is critical that your web page content is reflected in the meta tags for relevancy ranking.

Place meta tags between the <head> and </head> tags in this order:

- <head>
- <title>Type up to 60 character description of each page, using words found on the individual page</title>
- <meta name="description" content="Type a 150 character description of your page here">
- <meta name="keywords" content="type your list of one, two and/or three-word keyword phrases here, separated by commas, no more than 250 characters, avoid using redundant words, see fundamental meta tag rules below. Additional words may be used but some search engines don't go past the 250 character mark.">
- <meta name="robots" content="ALL">
- <meta name="robots" content="INDEX">
- <meta name="robots" content="FOLLOW">
- </head>

Dynamic pages

Database-driven, created on the fly by asp, cfm, php, jsp or cgi scripts

Dynamic sites are comprised of templates, but usually without original content

When a page is viewed, the template loads the content from the database

Parameters are added to the URL, which tells the template to load specific content

Session IDs

The kiss of death if left unmanaged

Same content is delivered to the crawler but as unique URLs

Crawlers will ignore web pages with session IDs

Omit session IDs if the requestor is a crawler ... but no cloaking!

Optimizing PDFs

Make sure PDFs contain actual text, not images of text

Same rules for use of keywords and phrases apply

Put the most important text in the title, headlines

Minimize document size (< 100K)

Create optimized HTML pages for PDFs

Use Adobe PDF Online (<https://createpdf.adobe.com/>)

Removing Content

Avoid using default 404 pages

- Custom 404 pages are more user-friendly
- Submit all 404 URLs to the search engines using their Add URL form – quickest way to get the 404 pages out of the index
- Remember to change the HTTP status code on custom error pages from 200 to 404

Changes to Site Architecture

Try to keep the same filenames and directory structure when redesigning

Follow MSN's "[What to do when your site moves](#)":

Recommended: Set up HTTP 301 redirects that point to the new site or pages

Not Recommended: Add a meta-refresh tag to your page header.
This won't remove your original page from the MSN index, and thus your site's search engine.

Optimizing PDFs

Make sure PDFs contain actual text, not images of text

Same rules for use of keywords and phrases apply

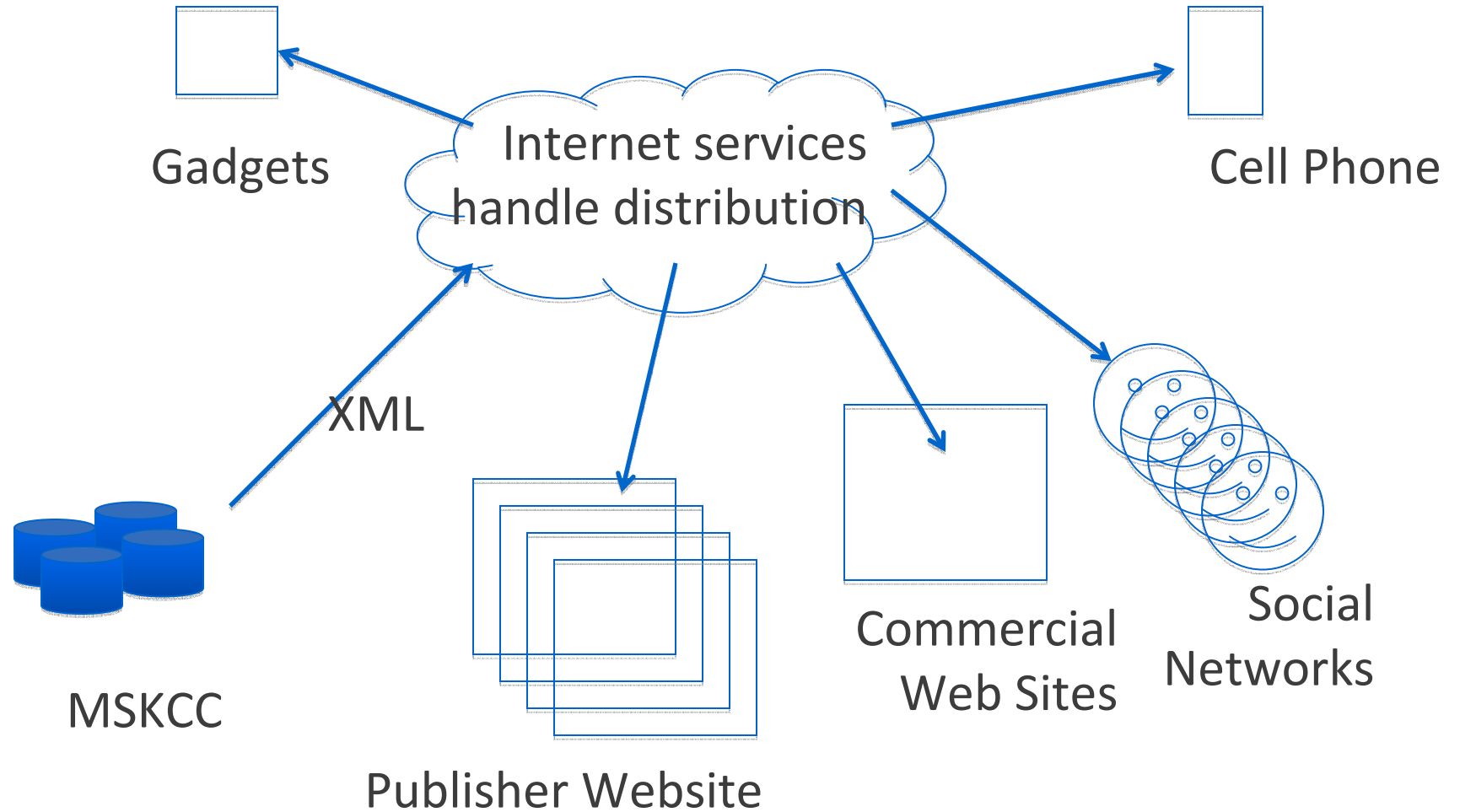
Put the most important text in the title, headlines

Minimize document size (< 100K)

Create optimized HTML pages for PDFs

Use Adobe PDF Online (<https://createpdf.adobe.com/>)

“Strategic Search” Publishing



Next Steps?

- Ensure concepts in redesign
- Content distribution ideas
- Social Network plans? (in progress)